

## ABSTRACT OF THE INVENTION

A heat sealable barrier layer for food and beverage cartons is provided, the barrier layer including an additive material which reduces the amount of essential oil scalping from citrus products. Additionally, a carton coating layer 5 and process is provided for reducing a coefficient of friction of stacked carton blanks. An additional embodiment of the invention provides for a paperboard substrate having reduced water vapor transmission rates, the reduction in water vapor transmission rates being attributed to one or multiple extruded layers containing an effective amount of an inorganic additive.

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